FORM 4

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

## UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

## STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

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| OMB APPROVAL        |           |  |  |  |  |  |  |  |
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| OMB Number:         | 3235-0287 |  |  |  |  |  |  |  |
| Estimated average b | ourden    |  |  |  |  |  |  |  |

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hours per response:

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

| 1. Name and Address of Reporting Person*  FALLON LYNNETTE C  (Last) (First) (Middle)  C/O AXCELIS TECHNOLOGIES, INC.  108 CHERRY HILL DRIVE  (Street)  BEVERLY MA 01915  |     |       |                                      |  | 3. D<br>07/       | 2. Issuer Name and Ticker or Trading Symbol     AXCELIS TECHNOLOGIES INC [ ACLS ]  3. Date of Earliest Transaction (Month/Day/Year)     07/03/2006  4. If Amendment, Date of Original Filed (Month/Day/Year) |  |                               |       |   |  |                            |  | [ (C | S. Relationship of Reporting Person(s) to Issuer (Check all applicable)     Director 10% Owner     X Officer (give title Other (specify below) below)     Executive VP, HR/Legal      6. Individual or Joint/Group Filing (Check Applicable Line)     X Form filed by One Reporting Person     Form filed by More than One Reporting Person |  |             |  |  | pplicable |
|--|-----|-------|--------------------------------------|--|-------------------|--|--|-------------------------------|-------|---|--|----------------------------|--|------|---|--|-------------|--|--|-----------|
| (City)   | (St |       | Zip)                                 |  |                   | _  |  |                               |       |   |  |                            |  |      |   |  |             |  |  |           |
| Table I - Non-Deriva  1. Title of Security (Instr. 3)  2. Transa Date (Month/D   |     |       |                                      |  | action<br>Day/Yea | 2A. Deemed<br>Execution Date,<br>if any<br>(Month/Day/Year)  |  | 3.<br>Transa<br>Code (I<br>8) | ction | 4. Securities Acquired Disposed Of (D) (Instr. 5)  Amount (A) or (D)  |  | (A) or<br>3, 4 aı<br>Price | 5. Amo<br>Securi<br>Benefi<br>Owned<br>Report<br>Transa<br>(Instr. |      | ount of<br>ties<br>cially<br>I Following<br>ted<br>iction(s)<br>3 and 4)  | 6. Owners<br>Form: Dir<br>(D) or Indi<br>(I) (Instr. 4 | ect<br>rect | 7. Nature<br>of Indirect<br>Beneficial<br>Ownership<br>(Instr. 4)  |  |           |
| Common Stock 07/03/2006 A 50,833 A \$0(1) 106,133 D  Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)                              |     |       |                                      |  |                   |  |  |                               |       |   |  |                            |  |      |   |  |             |  |  |           |
| 1. Title of Derivative Security (Instr. 3)  2. Conversion or Exercise Price of Derivative Security  (Instr. 3)  3. Transaction Date (Month/Day/Year)  (Month/Day/Year)  3. Transaction Date (Month/Day/Year)  (Month/Day/Year) |     | Date, | 4.<br>Transaction<br>Code (Instr. 8) |  |                   | ative<br>rities<br>ired<br>osed  |  |                               | 9     | 7. Title and Amount of Securities Underlying Derivative Security (Instr. and 4)  Amoun or Numbe of Title Shares |  | ount                       |  |      | 9. Number of derivative Securities Beneficially Owned Following Reported Transaction (Instr. 4)   | Owner<br>Form:<br>Direct<br>or Ind<br>(I) (Ins         | (D)<br>rect | 11. Nature<br>of Indirect<br>Beneficial<br>Ownership<br>(Instr. 4) |  |           |

## **Explanation of Responses:**

1. These shares are issuable on restricted stock units granted under the Company's 2000 Stock Plan. 50% of these units will vest on July 3, 2009 (subject to acceleration on achievement of a market capitalization goal) and the remaining 50% of the units will vest on July 3, 2010 (subject to acceleration on achievement of a market capitalization goal), provided however, that such vesting shall in no event be earlier than July 3, 2008.

Lynnette C. Fallon 07/05/2006

\*\* Signature of Reporting Person Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

- \* If the form is filed by more than one reporting person, see Instruction 4 (b)(v).
- \*\* Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.